

# **Investigation of Dried Fishery Products In The Chinese Market**

**Peoples Republic of China**

**1997-1998**

Submitted by  
**Wang QiuKuan, Professor**  
**Jiang Zhikai, Professor**  
**Zhang Wenxiao, Ph.D.**  
Dalian Fisheries University  
Dalian, China

## **Table of Contents**

<b>1</b>	<b>Historical development of the dried fishery products industry</b>
<b>2</b>	<b>Overview of dried fishery products in China</b>
2.1	The production of dried fishery products
2.2	Types of dried fishery products and their consumption in different regions
2.3	Distribution systems for dried fishery products
<b>3</b>	<b>Processing Technologies</b>
3.1	Technologies for processing dried fishery products
3.2	The processing procedures of roasted fish fillet and dried shrimp
<b>4</b>	<b>Customer Preferences</b>
4.1	Changing preferences for dried fishery products
4.2	Customer preferences and expenditures in different areas
4.3	Customer demands for highly nutritious foods
4.4	Dried fishery product markets in selected areas
<b>5</b>	<b>Consumer willingness to try new products</b>
5.1	Marketing new products
5.2	Customer willingness to try a new product
<b>6</b>	<b>Market size and market value</b>
<b>7</b>	<b>Price information</b>
<b>8</b>	<b>Import and export tariffs</b>
<b>9</b>	<b>Suggestions for developing Alaskan fishery products</b>
9.1	Selection of marketable species
9.2	Selection of correct processing technologies and recipes
9.3	Making suitable price decisions
9.4	Take the direct distribution channel

**Appendix I** Retail prices of different dried fishery products in  
different regions

**Appendix II** Tariffs and restrictions

**Appendix III** Contact information

# **The Investigation of Dried Fishery Products in the Chinese Market**

## **1. Historical Development of the Dried Fishery Industry**

Processing dried fishery products is an ancient human activity that received little scientific attention until early in the nineteenth century. Later, in the middle of that century, various innovations took place in food processing technologies and people started to notice the texture of dried fishery products. Nonetheless, people continued to process the original products using only very simple drying techniques, such as natural sun light drying.

Advanced machinery and techniques have been introduced into China with the development and opening of the Chinese economy. These introductions have encouraged the rapid advancement of the dried fishery product industry. As can be seen, the types of dried fishery products on the Chinese market are extremely varied. A significant amount of time is needed to locate, select, and taste a reasonable sample of these many products.

In this project, we intend to carry out a careful investigation of the Chinese dried fishery product market including the present species, quantity, market size and value, customer preferences, and product demand. We have also made suggestions regarding the production of products that will meet peoples' appetites and demands.

Originally, the main purpose for processing dried fishery products was to extend the preservation time of an otherwise perishable product and to make the products taste special. As we know, since the drying procedure lowers fishery products' water content and the level of product water activity, the shelf life of the dried products becomes longer. The dried fishery products can also develop special aromatic flavors during storage, since some of the proteins are altered by proteinases to produce amino acids. These special flavors and

other properties make dried fishery products very attractive and have allowed them to develop their own stable base in the competitive seafood market.

During earlier days, dried fishery products were processed using only very simple techniques. These traditional products can be divided into three general types depending on the way that salt is added:

- no salt added
- salted in brine
- dry salt added to product

All the products processed through these means were dried by natural sun light. Although this type of processing is simple, the processing sequence usually includes packing the product into baskets for several days and then returning the product to the racks to continue drying. This strategy allows the products to develop nice textures and attractive flavors.

With the introduction of drying machinery and related processing techniques, the technologies for processing dried fishery products have developed rapidly. As a consequence, the number of forms of dried products has gradually increased. Although some products are still processed using very traditional drying methods, most products, particularly products produced by medium-sized and large companies, are processed using more sophisticated techniques. Under these current conditions the quality of the products is under systematic control.

There are numerous dried fishery products in the Chinese market. These products can be classified into several types depending on their nutritional value, processing techniques, and their shelf life once they reach the market.

- One type includes those items thought to be highly nutritious products, such as dried sea cucumber and shrimp. Products in this category typically have low annual production levels and, as a consequence, are usually quite expensive. These premium products are rarely spiced and are processed using simple procedures designed to conserve the nutritional components of the product.
- The second type includes products, such as shredded squid, that have very attractive flavors and are processed using highly involved techniques. This type of product is usually marketed as a snack and at prices that make it quite attractive to the customers.
- The third category of products includes those that do not enjoy a wide popularity or are popular for only a short time or only in specific cities. These can be highly nutritious or very spicy products. This type of product is usually not long-lasting on the market because it may be affected by unstable resources or available only at certain times of the year. One product in this category is spiced little lean fish.

As mentioned previously, the rate of development of dried fishery products in the Chinese market is currently very rapid, including changes in species, product types, and processing technologies.

## **2. Overview of Dried Fishery Products in China**

### **2. 1 The production of dried fishery products**

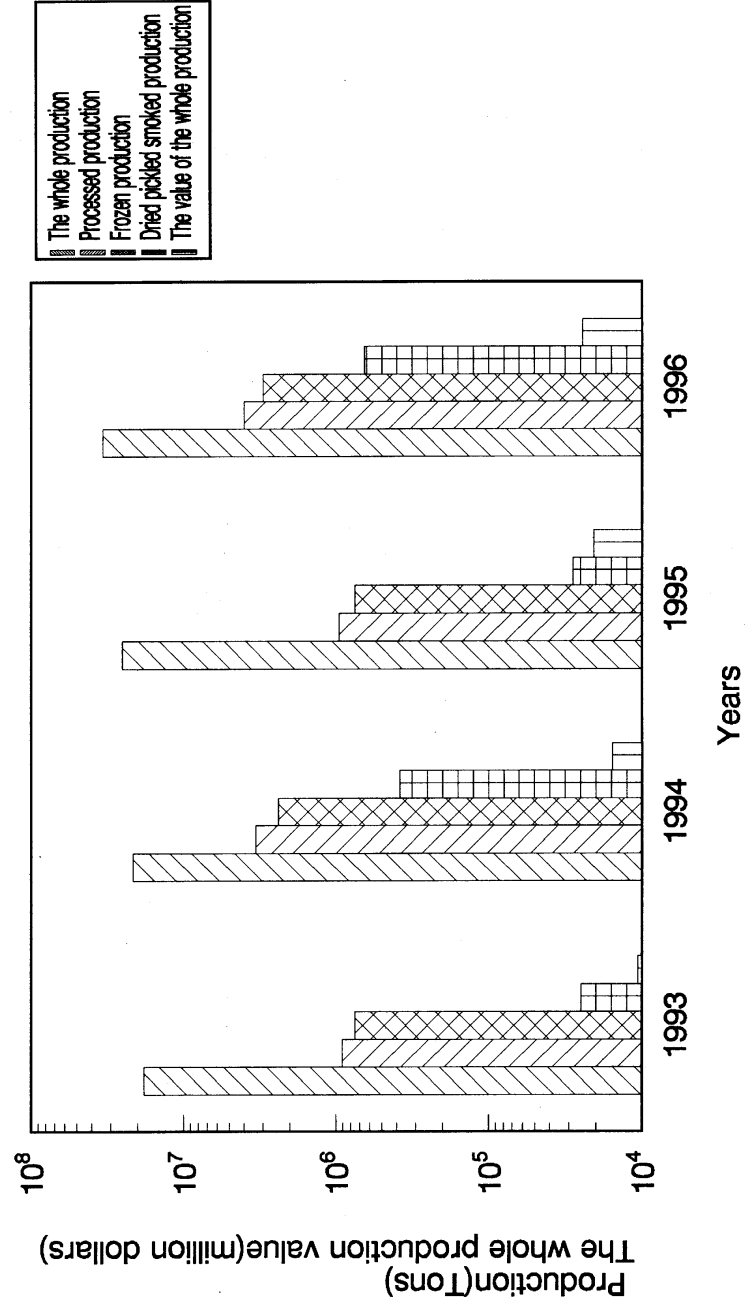
The dried fishery product industry is now well developed and has imported advanced facilities for processing various dried, spiced, and shredded fishery products. However, the total Chinese production of dried fishery products has not been stable over the period from 1993 to 1996 (see Graph 1). From Graph 1, we can see that production of fishery products in China has increased steadily over the past four years. However, the amount of processed products was not stable, particularly in 1995 when the amount decreased to 951,114 tons. This included decreases in dried, pickled, and smoked products. However, the production levels of dried, pickled, and smoked fishery products in 1996 (estimated) were quite high. Considering the current state of economic development and the dried fishery products on the market, we believe that 1997 production will not be less than the above amount. The reason for the low production of processed products in 1995, including the amount of dried fishery products, is not very clear.

Graph 2 gives a picture of fishery production in Liaoning Province. As can be seen, the trend of production from 1993 to 1994 is similar to that of Graph 1. Production of some highly nutritious and low value products decreased quite sharply in 1995, while production of other dried products did not. In 1996, production levels that did decline recovered or increased. For example, the production of dried, pickled, and smoked fishery products increased very rapidly to two times higher than the production level of 1994. In 1996, consumers also enthusiastically welcomed some new dried fishery products; correspondingly, production of these new products, such as shredded squid (Graph 5), has increased rapidly. Therefore, the overall production level for dried fishery products in 1996 is quite high.



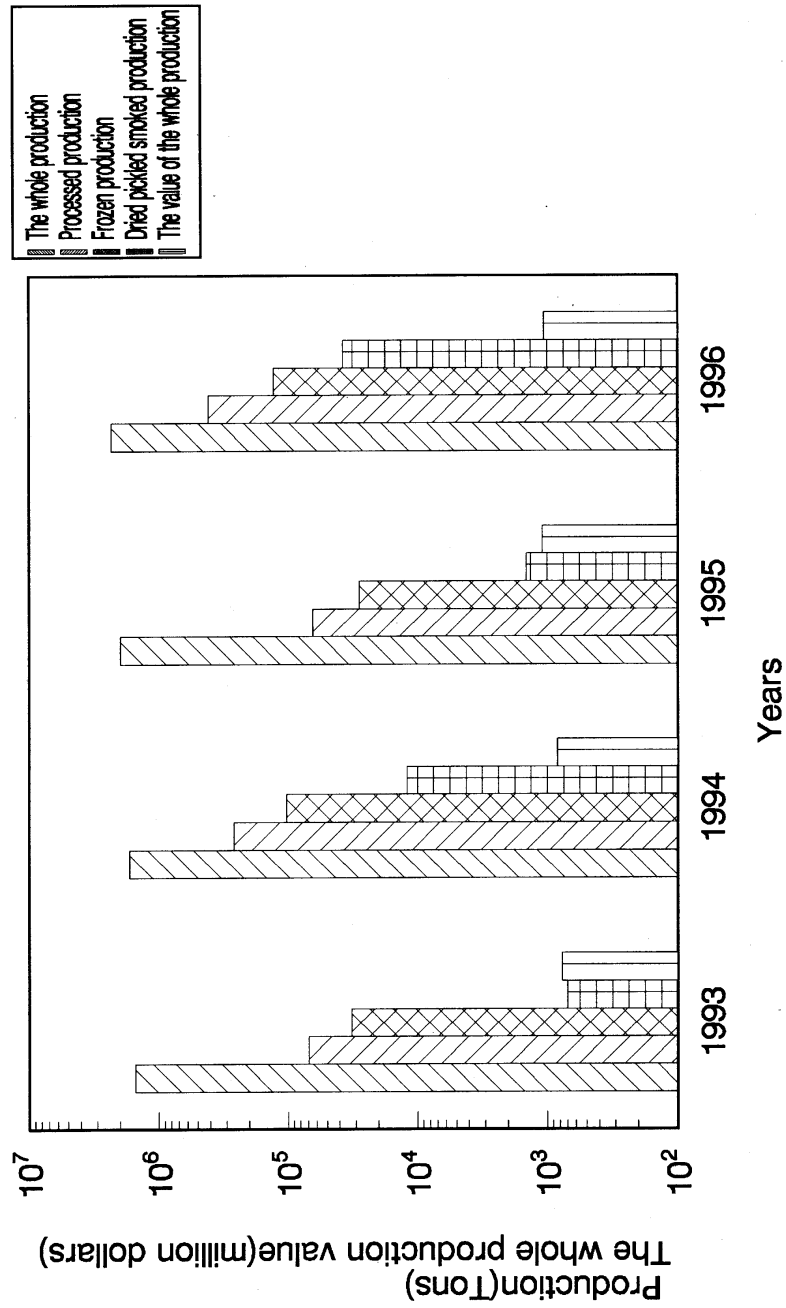


Graph 1 Fishery Production and Value of China  
in Recent Years



Source: China Yearbook of Agricultural  
Statistics

Graph 2 Fishery Production and Value of Liaoning  
Province in Recent Years



Source: China Yearbook of Agricultural  
Statistics

Graphs 3, 4, and 5 demonstrate production levels in Shandong, Jiangsu, and Guangdong Provinces. As is shown in the graphs, levels of fishery production and consumption are quite high in these provinces. The level of production of processed products is higher in Shandong Province than in Jiangsu, Liaoning and Guangdong Provinces. The levels of production of dried, pickled, and smoked products in Shandong Province are large, as well. Also note that the amount of processed products, including dried, pickled, and smoked products, dropped greatly in all these provinces in 1995. The graphs indicate that the production of dried fishery products increased in 1996 and it is estimated that it will be slightly higher in 1997.

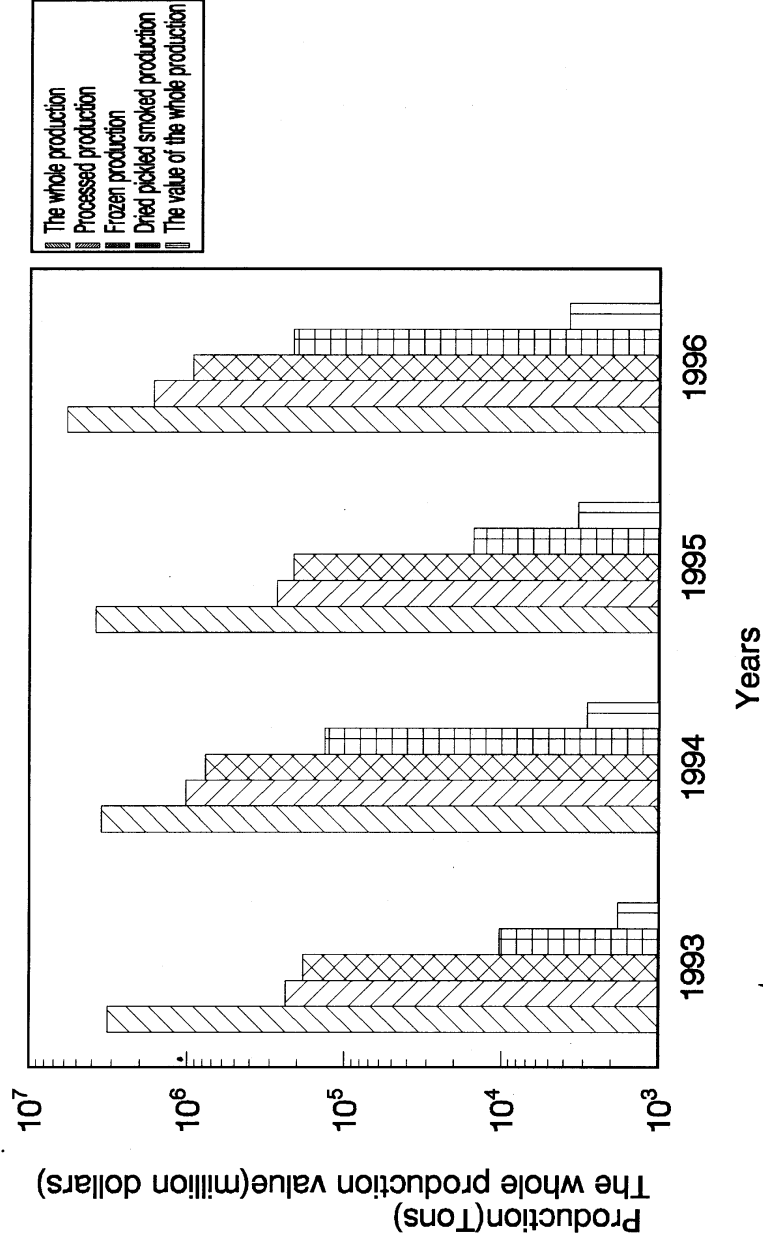
Table 1 shows the percentages of dried seafood production compared to total fishery production by quantity in Liaoning, Shandong, Jiangsu, and Guangdong Provinces. As the table indicates, the percentages of dried fishery products are low. However, the percentages of dried fishery products compared to the production of processed products by quantity are quite high -- 16.25% for the whole country and 9.20%, 12.94%, 12.3%, and 16.58% for Liaoning, Shandong, Jiangsu and Guangdong Provinces in 1996 respectively. These data indicate that dried fishery products are among the main types of processed fishery products in China. However, in terms of processed fishery products, production trends tend to fluctuate over the years.

Table 1 The Percentages of Dried Fishery Products by quantity  
on their Whole Fishery Products

Names	Percentages			
	1993	1994	1995	1996
The whole country	0.14	1.78	0.11	1.91
Liaoning Province	0.046	0.72	0.073	1.6
Shandong Province	0.32	3.8	0.40	3.61
Jiangsu Province	0.007	0.136	0.006	1.01
Guangdong Province	0.27	1.49	0.17	1.50

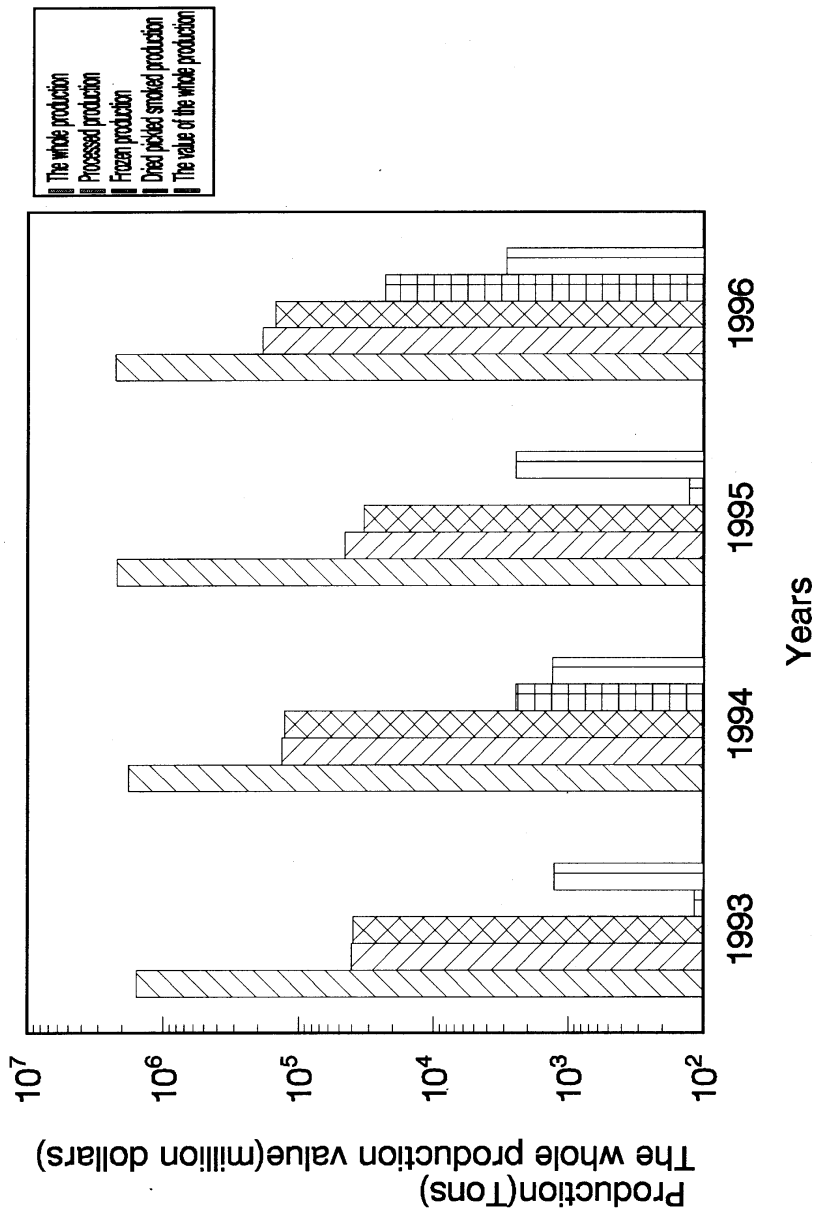
Source: China Yearbook of Agricultural statistics.

Graph 3 Fishery Production and Value of Shandong  
Province in Recent Years



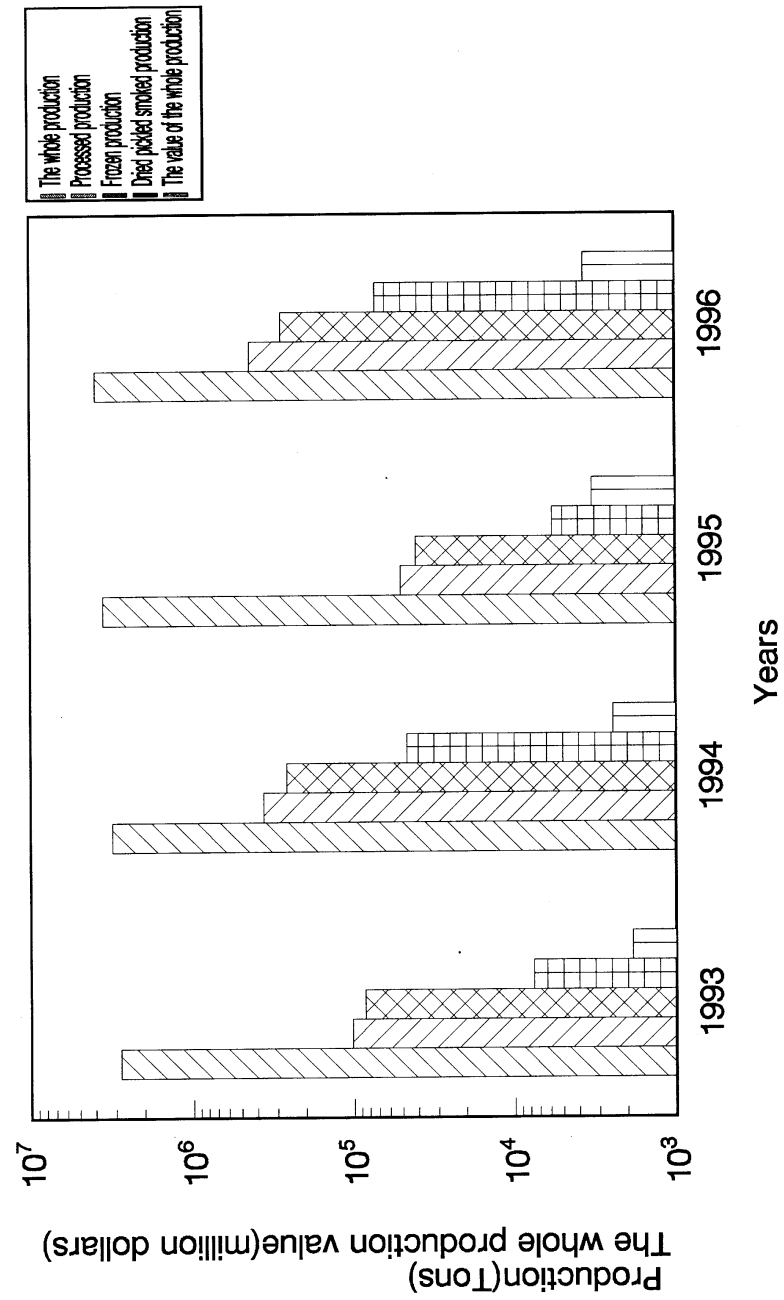
Source: China Yearbook of Agricultural  
Statistics

Graph 4 Fishery Production and Value of Jiangsu  
Province in Recent Years



Source: China Yearbook of Agricultural  
Statistics

Graph 5 Fishery Production and Value of Guangdong  
Province in Recent Years



Source: China Yearbook of Agricultural  
Statistics

Graph 6 provides a picture of production of dried, pickled, and smoked products in 1996 in five provinces. China is a big country and, although the economy has developed greatly, there are still some remote provinces that have only low consumption of fishery products. These areas include Henan and Sichuan Provinces where the total levels of fishery production are only 158,442 tons and 361,273 tons respectively in 1994. Consumers in these provinces would probably like to spend more money on nutritious food, like fishery products. Considering shelf life and regional transportation problems, dried, pickled, and smoked products would be the most suitable products for consumers in these areas.

## 2.2 Types of dried fishery products and their consumption in different areas

Although there are numerous dried fishery products currently on the market, most types of products in the different marketing areas are quite similar. Examples include dried sea cucumber (\$65-\$168/kg), dried shrimp(\$26-\$38/kg), shark fin (\$48-\$600f/kg), roasted fish fillet (\$719/kg), and shredded squid (\$11-\$20/kg). These products are usually purchased as highly nutritious food or nutritious snack food. In addition, some dried fishes, such as dried mackerel and dried eel, are traditional Chinese products and have their own attraction.



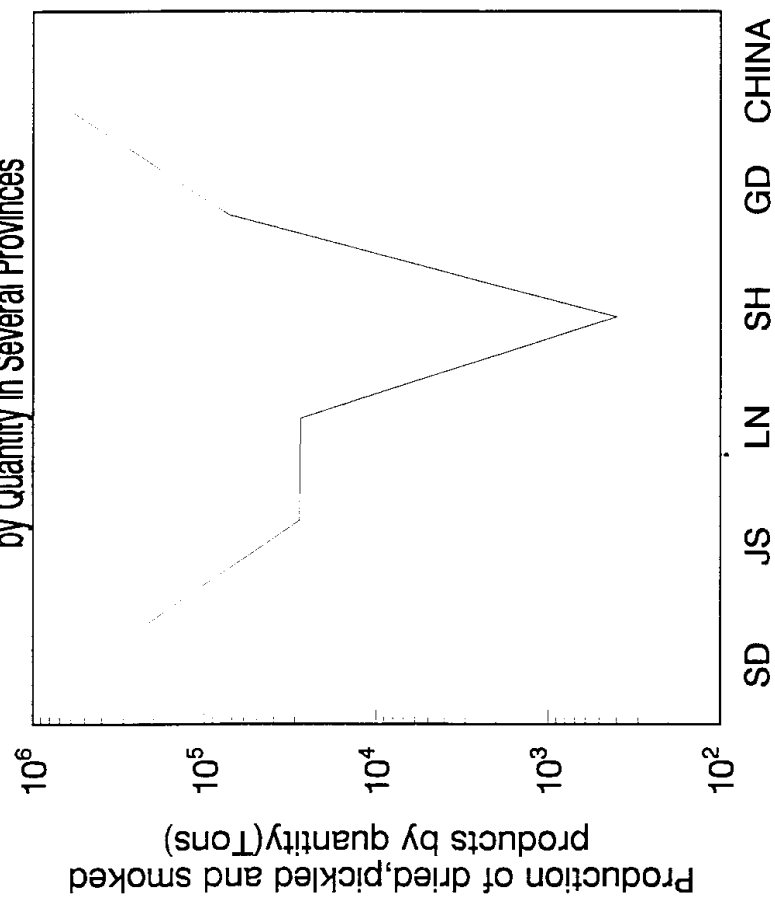
Table 2 The Percentages of Dried Fishery Products  
on their Processed Fishery Products

Names	percentages			
	1993	1994	1995	1996
The whole country	2.76	11.42	2.96	13.42
Liaoning Province	1.01	4.59	2.26	9.20
Shandong Province	4.34	13.12	5.58	12.94
Jiangsu Province	0.29	1.85	0.28	12.3
Guangdong Province	7.42	12.87	11.46	16.58

Source: China yearbook of Agricultural Statistics.

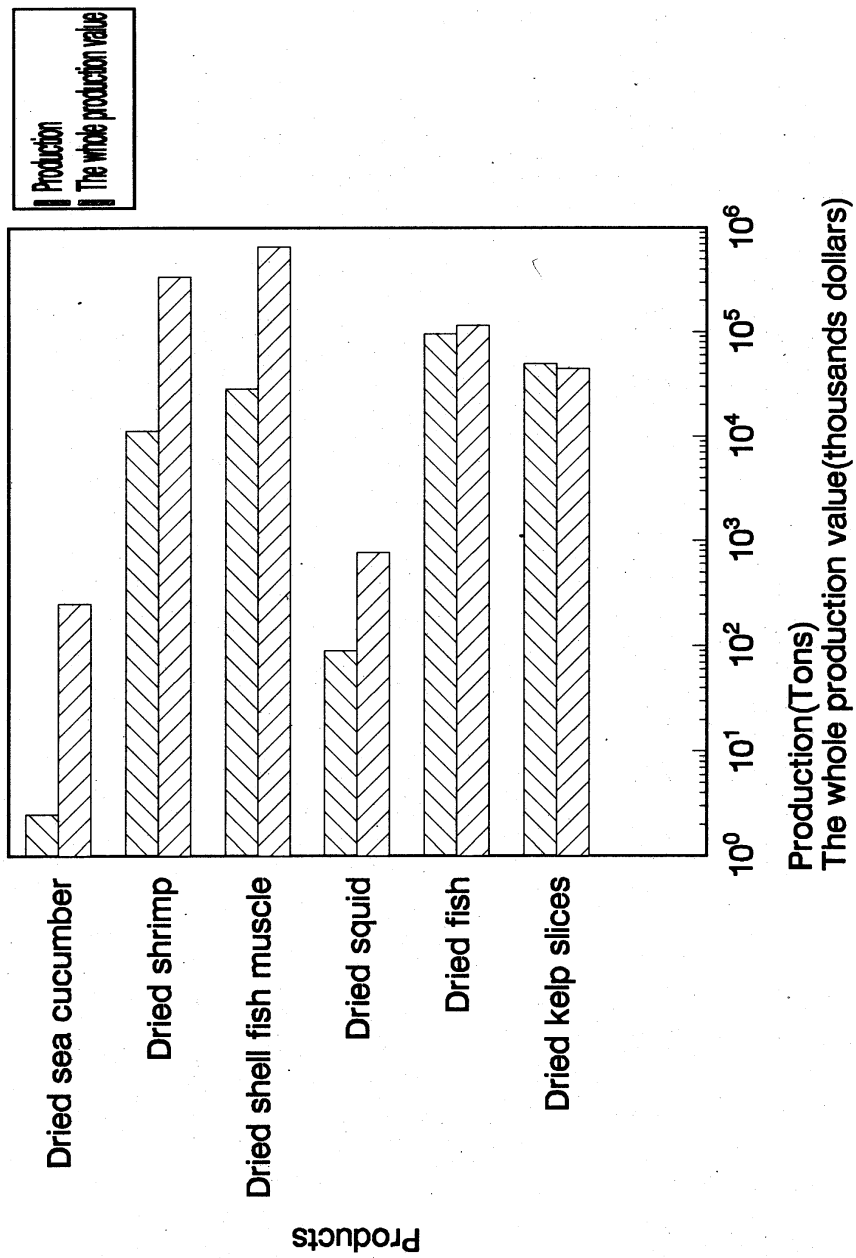
Therefore, highly nutritious products and the common or traditional products are dominant and occupy stable positions in the dried fishery product market. However, the sale volumes of these products would not be among the highest, particularly for dried sea cucumber (the total sales in Shandong province in 1996 were estimated at 2.5 tons). The total sales of dried shrimp were estimated at 11,300 tons in 1996 (Graph 7). Some spiced dried fishery products that are served as snack food, including shredded squid, have very high sales volumes. The production of this product in 1996 in Liaoning province is about 85 tons (Graph 8) and the production value is about 1,275 thousand dollars. Tables 1 through 9 in Appendix I illustrate the product types and prices in different market areas. As the tables indicate, the price differences for the same product in different markets are slight. These price differences could reflect factors such as transportation, area, producers, and different quality of raw materials.

Graph 6 Production of Dried,Pickled and Smoked Products  
by Quantity in Several Provinces



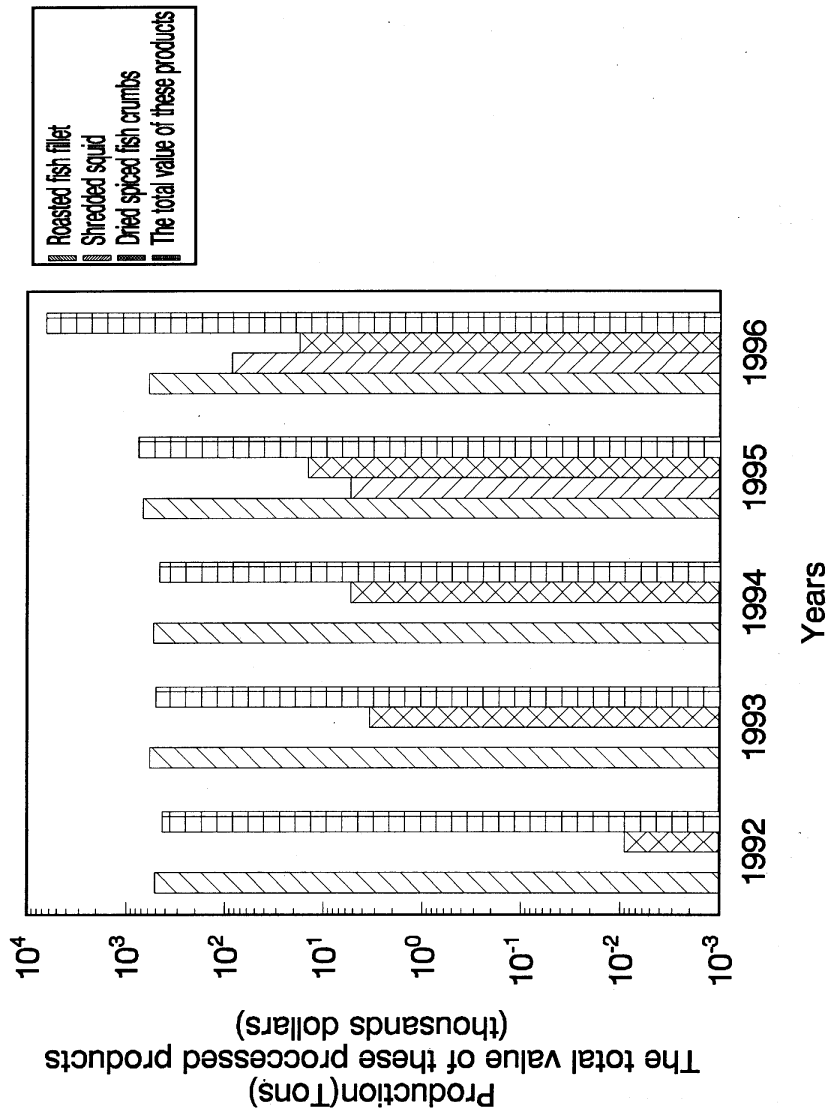
Province(SD:Shandong;JS:Jiangsu;LN:Liaoning;  
SH:Shanghai;GD:Guangdong;CHINA:Whole country)  
Source: China Yearbook of Agricultural  
Statistics

Graph 7 Estimated Production and Value of Dried Fishery  
Products on Shandong Market in 1996



Source: Shandong Fishery Bureau

Graph 8 Comparison of the Production and Value of Dried  
Fishery Products on Liaoning Market in Recent  
Years



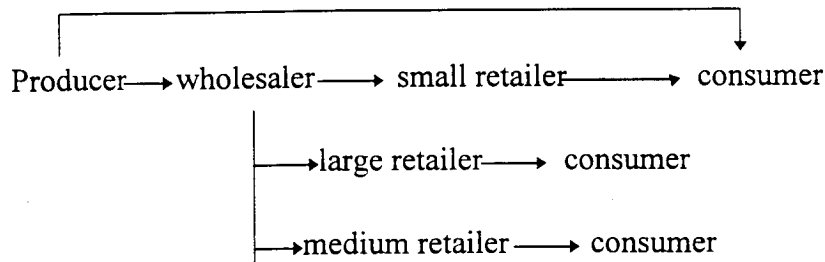
Source: China Yearbook of Agricultural  
Statistics

### 2.3 Distribution systems for dried fishery products

Dried fishery products come to the market through wholesalers or directly from the producers. In recent years, in order to reduce marketing costs, large numbers of plants have set up their own retail stores and marketing systems. In this fast-paced, competitive society, all the plants realized that a complete marketing study is necessary for the successful introduction of a new product or service. An efficient market-oriented organization is also necessary for selling existing products. One marketing manager from a big fishery company in Dalian said that his firm has three distinct elements that comprise their marketing concept:

- satisfaction of consumer needs
- coordination of all marketing support activities
- achievement of organizational objectives (through customer satisfaction)

The routes that goods take from producers to consumers, known as channels of distribution, have been shortened in recent years in the Chinese dried fishery product industry. Usually there is a broker or trader in the channel who works closely with producers and customers to develop the least expensive and most efficient distribution strategies. However, another channel of distribution has recently been developed, in which there is no middleman involved. The producer sells directly to the consumers. This channel is used by the large-sized fishery product producers. However, some small fishery product producers and some remote factories still depend on the wholesalers for their sales. Therefore, the channel of distribution for dried fishery products would be as follows:



The method of distribution will directly affect retail prices and the profits that producers make. Medium and large retailers usually add about 30% to 40% to receiving prices to calculate retail prices. This markup is more than that used by small retailers.

With the development of transportation systems and means of distribution, some large producers have started setting unique per-product prices that cover the whole country. These companies compensate retailers for transportation and distribution expenses. This helps to promote the reputations of both the product and the producer. One example of this marketing strategy is the dried fish fillets produced by the factory known as Liaoning Fishery Group.

### **3. Processing Technologies**

The form, taste, color, and texture of a product are all attributed to the different processing technologies, given the intrinsic attributes of the fishery material. Although the machinery for processing dried fishery products has been improved, not all dried fishery products are produced by complicated processing procedures. Examples include dried sea cucumber and dried shrimp.

The technologies used to process a particular product are nearly the same in the North and South of China. The distinct differences between products are created by the spices and recipes used to flavor the products. Table 3 illustrates the differences in roasted fish fillet

recipes used by companies in Dalian and Zhejiang Province. As indicated, the sugar content is higher in the recipe used by the company from Zhejiang Province. People in the South of China usually like spicier foods than people from the North of China.

Table 3 The spices and recipes for  
processing roasted fish fillet

Spices	Used by a company in Dalian	Used by a company in Zhejiang
sugar	4 %	6 %
salt	1 %	1 %
monosodium glutamate	1 %	1 %
potassium sorbate		
sorbitol		

Source: Fishery Processing Factory, Liaoning Fishery Group and  
Zhoushan Fishery Company

### 3.1 Technologies for processing dried fishery products

#### Dried sea cucumber

Following gutting, fresh sea cucumbers are boiled in sea water and then salted. The salted sea cucumbers have to be boiled again after 10-20 days of being packed in salt. Finally, the salted product is mixed with ashes and dried by sun light.

#### Dried mussels

Fresh mussels are boiled in large pans at a temperature of about 95-100°C. The meat is then removed and the extra water is removed. The mussels are then dried by sun light or in a drying tunnel.

#### Dried scallop adductor

The dried scallop adductor muscle can be dried in raw form or dried after being boiled. Most dried scallop products are dried after boiling. Fresh scallops are boiled at 95-100°C in salted water and the muscle is peeled off and dried in a drying tunnel.

#### Baked squid

The squid are first gutted and cut apart. Then the body parts are boiled and spiced. Finally, they are dried in a drying tunnel and a baking process.



## Dried spiced eel pieces

The fresh eel is gutted and, after washing and cutting, put into boiled water or a steam pan. The boiled products are then initially spiced and dried, and then spiced again followed by final processing.

### 3.2 The processing procedures for baked dried fish fillet and dried shrimp

Following are examples of technologies for processing baked dried fish fillet and for dried shrimp. Both products are widely used in China at present.

#### 1. Standard procedure for dried fish fillet

Fish fillet processing: Filleting the pollock fish takes place at a sanitary working area. The temperature of the working area is kept below 15°C. Bones and parasites are removed from the fish fillet during this processing.

Spicing: The fish fillets are mixed with spices and then allowed to stand for about an hour to allow for the diffusion of the spice flavors.

Drying: The drying procedure is completed in two steps. First, the fish fillet is dried at 40°C until about 70% of the moisture content is removed from the product. Then the fish fillet is dried at 50°C until the moisture content is about 10%. Both of the drying steps make use of drying tunnels.

Storing: The major purpose for storage is to keep the product dry and also to allow the moisture in the fillet to be distributed more evenly throughout it.

Roasting: The baking process is carried out on a stainless steel conveyor. The entire roasting time is only about 2 to 5 minutes. The heat source can be electricity or gas.

Shredding: This step of the process is completed using a shredding machine. The working principle is based on the use of revolving rollers of two different diameters. The shredding procedure is usually repeated two times so that the texture of the fish fillet becomes soft.

Packing and storage: The shredded roasted fish fillet product is packed in plastic bags, which can hold from 20 grams to 200 or 300 grams in weight. Following packaging, the plastic bags are placed in cardboard boxes and stored in a dry and dark place.

## Roasted fish fillet (pollock fillet)

### ① Flow chart

Fish fillet



Spicing



Drying at 40 °C



Drying at 50 °C



Store the dried fish fillet in plastic baskets



Roasting



Shredding 1



Shredding 2



Packing



Store

### ② Standard operating procedures

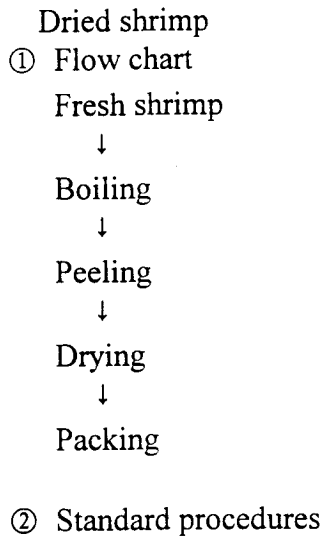
## 2. Standard procedure for dried shrimp

**Fresh Shrimp:** The fresh shrimp is received and inspected at the plant. If the shrimp is not fresh, it is processed as a low class product.

**Boiling:** Fresh shrimp is placed in boiling water that contains about 3% salt. The product is removed from the water when it boils again and the shell of the shrimp becomes red.

**Peeling and drying:** The shell of the shrimp is peeled and the shrimp meat is then placed on the plastic net for drying. The drying process can be finished in a drying tunnel or by sun light. Drying is continued until the moisture content of the product is less than 12%.

Packaging: The dried shrimp meat is packed in plastic bags and stored in a dry and dark place for later distribution to wholesalers or retailers.



#### **4. Customer Preferences**

##### **4. 1 Changing preferences for dried fishery products**

In the past, the drying process usually took a long time and, since the weather changed all the time, the quality of the products could not be guaranteed. Therefore, the processors, usually small home style processing businesses, were all exposed to the prejudice that only unfresh fishes were processed as dried fishery products. With the development and importation of machinery and processing technologies, the quality of some dried fishery products has improved drastically and the varieties of dried products have increased gradually. As a consequence, customers have gradually altered their bias concerning dried fishery products and have started to buy them for snacks and for meals. Many people even purchase these products as gifts for their friends and relatives living in inland areas.

## 4.2 Customer preferences and expenditures in different areas

Chinese people are more interested in food and nutrition now than they have ever been.

Many people have realized that nutrition is vital to the good health of people of all ages and that eating is much more than simply filling an empty stomach.

People living in different areas usually have different taste preferences for their foods.

People in the North of China appear to prefer moderately salty products. Although, compared with people in the South of China, they are more concerned with filling their stomachs, nowadays these people have also come to emphasize taste and nutrition. This is particularly true for the middle class people. They purchase nutritious foods, including dried products such as sea cucumber and shrimp, whenever they need these items and their finances allow.

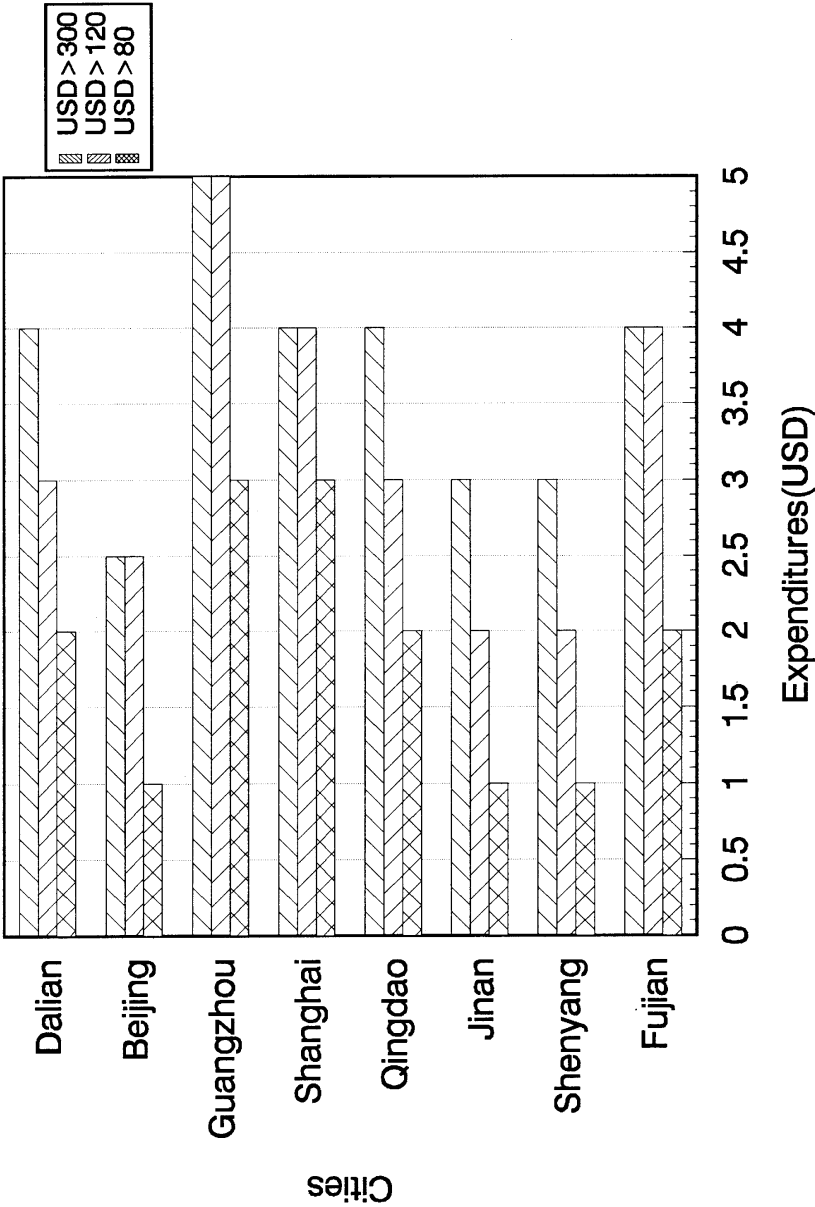
People in the South of China are typically concerned with the nutritional value of their food. Not only do people in the South of China emphasize the nutrition of food, they also pay more attention to the taste and flavor of their food. As indicated on Table 3,4,6, and 7 in Appendix I, there are more spiced dried fishery products in cities like Guangzhou, Fujian, and Shanghai of southern China. People there usually prepare nutritious food, including dried fishery products such as shark fin and fish bladders, on a regular basis. This is particularly true for the old people. In addition, people in the South of China may be genetically programmed to prefer sweet and spicy foods or this may be just because of the wet weather associated with this region. Almost all of the spicy dried fishery products have higher sugar contents than similar products distributed in the North of China. Some of these products, such as spiced dried eel and spiced dried file fish fillet, are also very hot.

On the other hand, people in big cities like Shanghai usually emphasize the nutrition of their food more than people in small cities. However, customers' choices depend not only on a product's nutritional value, but also on the customers eating habits.

In addition, people living along the sea coasts prepare much more seafood, including dried fishery products, than people living farther inland. The reason for this is that people living along the sea coasts have the convenience of local fishery products and they also prefer fishery products. People living inland have some difficulty obtaining fishery products and also usually do not like sea products. They may prefer freshwater fishes. When considering their nutritional needs, they do eat some dried seafood, such as kelp slices. However, with the development of the economy and the transportation infrastructure, people living in inland areas have come to realize the connection between good health and nutritious foods, such as fishery products. They will purchase more and more fishery products in the near future. The main types of fishery products sold in inland regions of China will be dried products because of their ease of distribution.

Graph 9 indicates the average monthly expenditures on dried fishery products of people in several cities. Over one thousand customers were surveyed in Dalian, Beijing, and Guangzhou. In other cities, more than one hundred customers were investigated. The findings indicate that customers in Guangzhou City spend the highest amount monthly on dried fishery products. The average expenditure on dried fishery products for customers in Shanghai ranks second. Moreover, people with higher incomes seem to spend more money on dried fishery products. One thing should be noted at this point -- that monthly income is one person's income. In China, one family usually has more than two people with incomes.

Graph 9 The Average Monthly Expenditures  
on Dried Fishery Products



#### 4.3 Customer demands for highly nutritious food

In recent years, several fishery products that provide a high content of highly unsaturated fatty acids, such as EDA and DHA, have appeared on the market. Many customers buy these products for old people and for school children. These products are produced as capsules. In addition, other products are also made from fish and are used to solve the problems of Vitamin A and Vitamin D deficiencies.

Many people have become aware of the connection between good nutrition and good health, but doubt the quality of some specific foods and the contents of their effective components. It would be very helpful if people could purchase natural fresh fish or quality dried fishery products in order to meet their nutritional needs. Currently, natural foods with effective component contents are the most welcomed foods and will find ready markets in China.

#### 4.4 Dried fishery product markets in selected areas

In order to determine customer preferences in different areas, investigations were carried out in three selected cities -- Dalian, Beijing and Guangzhou.

##### Dalian, China

Dalian is a city located in the northern part of China that has a population of about 1.5 million. It is a medium-sized city with an additional 5 million people living in suburban areas. Fishery production in 1995 was 1,188,775 tons. The city is also a major port for the importation and exportation of various products. People living in Dalian consume relatively more fishery products than people in inland areas.



There are about thirty kinds of dried fishery products produced in Dalian. Products such as dried prawn, dried sea cucumber, dried clam muscle, dried mackerel, dried mussel muscle, and others are all simply processed by sun light drying. Other products such as roasted fish fillet, shredded squid, baked dried squid, baked prawn, and others are produced by large or medium-sized companies that make use of special technologies and machinery for processing each product. These companies include the Fishery Processing Factory and Liaoning Fishery Group. The following information shows the major products produced by this processing group.

Tables 4, 5, 6, and 7 show the results of the investigations based on the data provided by Table 8. As mentioned, contacts were made with one thousand people. Dried fishery products were classified into four major types (based on nutritional value, price, and method of preparation) for the survey.

Table 4            Customers' preferences to different products  
in Dalian

Species	Total amount of people	Income status of people and the amount of people investigated		Amount of people willing to buy	Percentage of people willing to buy
Dried sea cucumber and dried shrimp	1000	>USD300	83	29	34%
		>USD120	410	67	16%
		>USD80	507	43	8%
Dried mackerel and dried skate and other fishes	1000	>USD300	83	3	3.6%
		>USD120	410	49	11.9%
		>USD80	507	98	19.3%
Roasted fish fillet and shredded squid	1000	>USD300	83	76	91%
		>USD120	410	350	85%
		>USD80	507	308	60%
Dried spiced eel and other spiced fishes	1000	>USD300	83	15	18%
		>USD120	410	98	23.95%
		>USD80	507	93	18%

Table 5 Customers' preferences to different products  
in Beijing

Species	Total amount of people	Income status of people and the amount of people investigated		Amount of people willing to buy	Percentages
Dried sea cucumber and dried shrimp	1000	>USD300	186	38	20.4 %
		>USD120	707	70	9.9 %
		>USD80	107	10	9.3 %
Dried mackerel and dried skate, etc.	1000	>USD300	186	5	2.7 %
		>USD120	707	55	7.8 %
		>USD80	107	6	5.6 %
Roasted fish fillet and shredded squid	1000	>USD300	186	130	69.9 %
		>USD120	707	408	57.7 %
		>USD80	107	59	55.1 %
Dried spiced eel, etc.	1000	>USD300	186	98	52.7 %
		>USD120	707	317	44.8 %
		>USD80	107	31	29.0 %

Table 6 Customers' preferences to different products  
in Guangzhou

Species	Total amount of people	Income status of people and the amount of people investigated		Amount of people willing to buy	Percentages
Dried sea cucumber and dried shrimp	1000	>USD300	521	103	19.8 %
		>USD120	409	75	18.3 %
		>USD80	70	4	5.7 %
Dried mackerel and dried skate, etc.	1000	>USD300	521	39	7.5 %
		>USD120	409	40	9.8 %
		>USD80	70	8	11.4 %
Roasted fish fillet and shredded squid	1000	>USD300	521	199	38.2 %
		>USD120	409	140	34.2 %
		>USD80	70	3	4.3 %
Dried spiced eel, etc.	1000	>USD300	521	273	52.4 %
		>USD120	409	219	53.5 %
		>USD80	70	20	28.6 %

Table 7 Expenditures on dried fishery products

Cities	Total amount of people	Income status of people and the amount of people investigated		Expenditures on dried fishery products compared with the expenditures on all other food stuff
Dalian	1000	>USD300	83	1.7 %
		>USD120	410	2.0 %
		>USD80	507	1.0 %
Beijing	1000	>USD300	186	1.0 %
		>USD120	707	1.6 %
		>USD80	107	1.5 %
Guangzhou	1000	>USD300	521	2.0 %
		>USD120	409	2.0 %
		>USD80	70	1.3 %

Table 8 Customers' preferences to different products and their expenditures on the dried fishery products

please fill and tick the corresponding answer

Species	Dried sea cucumber and dried shrimp	Dried mackerel and dried skate, etc.	Roasted fish fillet and shredded squid	Dried spiced eel, etc.
The products you willing to buy				
The purpose for buying the products,				
for meal or snack,				
for children or adults				
Your income status monthly	>USD300	>USD120	>USD80	
Your expenditure on dried fishery products compared with the expenditure on the whole food stuff	1 %	2 %	3 %	4 %
	5 %	6 %	7 %	8 %
	9 %	10 %		

Dried sea cucumber and dried shrimp are two highly nutritious products with high selling prices. Dried mackerel and skate are more economical products and are usually processed by natural sun light drying. These two general types of products (high priced and economical) are consumed as parts of meals, while the other two product types (roasted fish fillet, shredded squid, dried spiced eel, and others) are snack foods.

As shown on Table 4, many people in Dalian would like to buy roasted fish fillet and shredded squid. The survey results show that most people buy these products for snacks for their children. There is another high average percentage obtained for people with incomes over \$300. These consumers tend to buy highly nutritious fishery products such as dried sea cucumber and dried shrimp. Most people in the high income category buy these products for family meals. The percentages of people who are willing to buy dried spiced eel and other spiced products are quite high -- 18%, 23.9%, and 18% for people with different incomes. In general, the people of Dalian have relatively less interest in dried mackerel, skate, and similar products.

In addition, special attention should be given to the fact that there are many small baking restaurants in Dalian. These establishments all have home-style processed dried fishes for sale. The main dried products are flounder and eelpout. These products usually have slightly higher moisture contents. The owners of these small baking restaurants will welcome these products types if they have low prices and are available from commercial sources.

However, although the customers have shown their willingness to buy the dried fishery products, it does not mean that they will buy regularly and spend significant amounts of money on them. Table 7 shows the expenditures for dried fishery products compared to expenditures for all other types of food. These expenditures vary only slightly by income

and amount to only 1.7%, 2.0%, and 1.0%. These results indicate that the success of the dried fishery product market depends on customer preferences.

The dried fishery products produced in Dalian are marketed throughout the entire country, especially in the north and west part of China. There is also a small amount of dried fishery products exported to foreign countries, mainly to Japan and South Korea. The main export products are dried pollock fish fillet, roasted fish fillet, and shredded squid. Graph 10 describes the exportation of dried fishery products from Dalian.

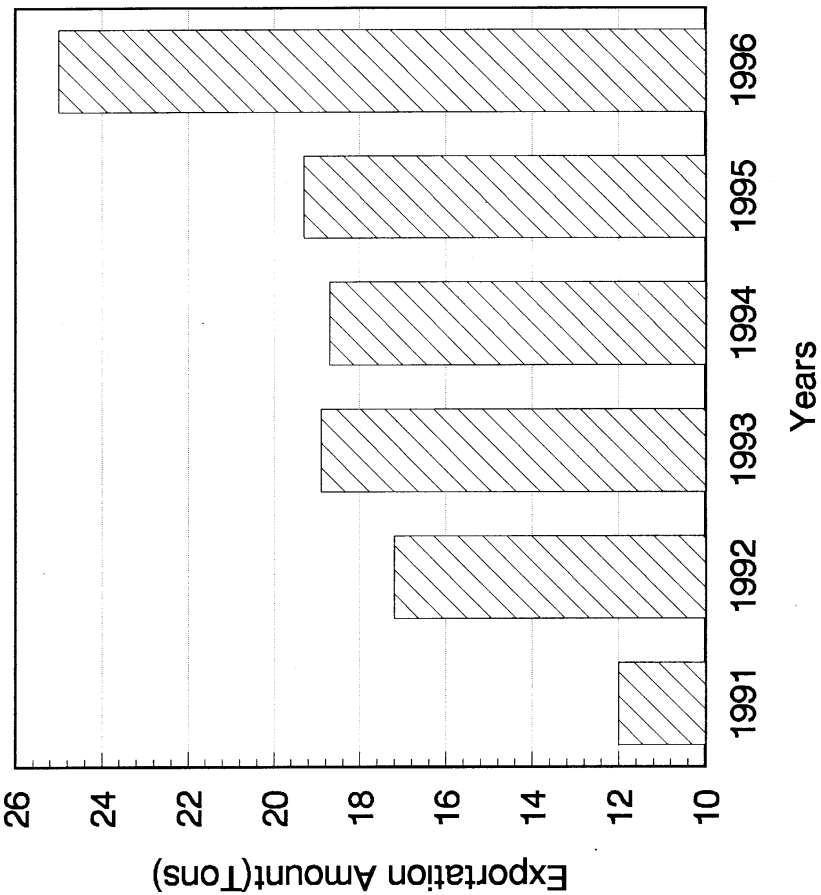
On the other hand, there have been almost no dried fishery products imported in the past two years. Before 1995, some dried sea cucumber from Canada was imported into China, but these products did not have a large market. Customers did not like the products because the specie of the sea cucumber was very different from the Chinese specie. The Canadian products sold for very low prices. The specie Chinese consumers prefer is *Stichopus japonicus* (Selenka). People believe it is the most nutritious and, scientifically, it is.

Therefore, any importation of dried fishery products has to emphasize three factors:

- the specie and nutrition
- price
- processing technology used

It is important not to underestimate the importance these factors will have on the success for marketing dried fishery products on the Chinese market.

Graph 10 The Exportation of Dried Fishery  
Products from Dalian Port



Source: Liaoning Import and Export Commodity  
Inspection Bureau

## Beijing, China

Beijing is the capital of China and has a population of about 9 million. People in Beijing enjoy a relatively high income compared with the other cities in the North of China. As indicated in Table 5, the most welcomed products in Beijing are roasted fish fillet, shredded squid, and spiced eel. Only a few people will buy dried mackerel, skate, and other dried fish. The percentage of people with incomes over \$300 who are willing to buy sea cucumber and similar products is quite high (20.4%). This tends to indicate that these people stress the quality of their nutritional intake if the expenditure can be allowed. Surprisingly, the percentages of expenditures on dried fishery products compared with the expenditures on all other food items, as illustrated in Table 7, are not linked to income status.

A large portion of people interviewed said that they just could not remember to buy dried fishery products unless their children wanted them or they were reminded by others. This suggests that nothing reminds people to buy dried fishery products except for the displays of products in the market. Indeed, although all dried fishery product processors spend big portions of their available resources on marketing, the investment on advertising for the dried fishery products is small.

For years, Chinese have recognized the importance of advertising. Advertising is important in stimulating trade and competition not only among similar products, but also between different types of products. The way to increase the sale volumes of dried fishery products, especially snack foods, is to advertise the products. The number of children who have learned of the product called "mini puff" from watching television is evidence of advertising's effectiveness. People should be reminded to purchase dried fishery products wherever and whenever they need them.



In addition, the number of kinds of dried fishery products, particularly the spiced dried products, has increased very rapidly. New varieties should still be developed, though, especially with the further development of the Chinese economy. A significant number of people have become wealthy and have come to emphasize the nutritional aspects of their food intake. These consumers are concerned with the flavor of the food as well.

The dried fishery products sold on the Beijing market are produced mainly in Zhejiang and Guangdong Provinces and Dalian City (Appendix I, Table 2).

#### Guangzhou, China

Compared with people living in Dalian and Beijing, people living in Guangzhou particularly stress their food nutrition and tastes. There is a saying that people in Guangdong Province eat everything with four legs except for tables. For example, many people in Guangzhou eat fish bladders because they believe that they are very nutritious and have a special medical use in the human body. This demonstrates the importance of nutrition and medicinal uses of food to people living in Guangzhou. In addition, in Guangzhou and elsewhere in the South of China, people purchase dried mussel as very nutritious food to be consumed by pregnant women and by women who have just given birth. Of course, there is a sizable amount of literature concerning the nutritious nature and medical functions of some dried fishery products. People in Guangzhou have come to realize these functions and are fully incorporating a number of these products into their diets.

As Table 6 indicates, people in Guangzhou are most interested in roasted fish fillet, shredded squid, and dried spiced eel. The interview results in Guangzhou also tell us that the percentage of people willing to buy dried fishery products varies with income status.

Consumers with high incomes show less willingness to purchase dried mackerel, skate, and other fishes. For the other three types of fishery products, though, a relatively higher average percentage of individuals at high income levels is shown.

It is important to note that there is a high proportion of people with high incomes in Guangzhou City. It is said that the average income in Guangzhou is quite high compared to other cities and high income status is always associated with a high standard of eating. Because of this fact, cities like Guangzhou have high potentials for the marketing of dried fishery products, including highly nutritious products and snack products. The percentages of expenditures on dried fishery products compared to all other food items are given in Table 7. The average percentages are relatively high, but there is no significant difference between the expenditure percentages of people in Guangzhou and the expenditures of people in other cities.

## **5. Consumer willingness to try new products**

### **5.1 Marketing a new product**

In the past two years, many new products have been placed on the market. Unless they have become aware of them through advertisements, most customers do not buy them because they do not notice the new brand. Also, the typical consumer does not know about the taste of the new products until they are told by others. Nonetheless, there is still a small portion of consumers who like to try new products.

The buying habits of the majority of consumers determine the sale volume of new products. Most consumers do not have the time to look through every brand of product. Consequently, advertisements are very important for the promotion of a new product. As

every body knows, the advertisements can be on television, newspaper, magazines, radio and other media. It is important to realize that there are many companies currently marketing new products by placing them in conspicuous market positions. These companies are also introducing these products to consumers through the use of their marketing employees. Compared with the expenses associated with television advertising, it is much cheaper to employ marketing employees in China to introduce the new products to consumers. However, this is only the start of marketing a new product.

## 5.2 Customer willingness to try a new product

Table 9 and Graph 11 illustrate the results of a survey of customer willingness to try new dried fishery products in Dalian. As Table 9 indicates, 26% of people would like to try new dried fishery products while 61% of the people would not like to try new products.

However, 26% means 390,000 people who would try the new products. It is still quite a large market. In addition, looking at the data in the parentheses, high percentages of people with incomes more than \$300 and \$120 would try new dried fishery products. People with low incomes (\$80 to \$120) showed less interest in these dried fishery products.

However, most people investigated said that they would like to try the product if the price and taste were attractive. Another important factor that will affect consumer preference is the packaging of the product. The package for snack food should contain a suitable amount of product and have an attractive design. In addition, packages containing products for meal preparation should give the impression that the cost of the package is low, that it is well protected, and that the product is of high quality.

Packing materials, including plastic and cardboard materials, have developed very rapidly in China during recent years. Therefore, imported products can be packaged in China

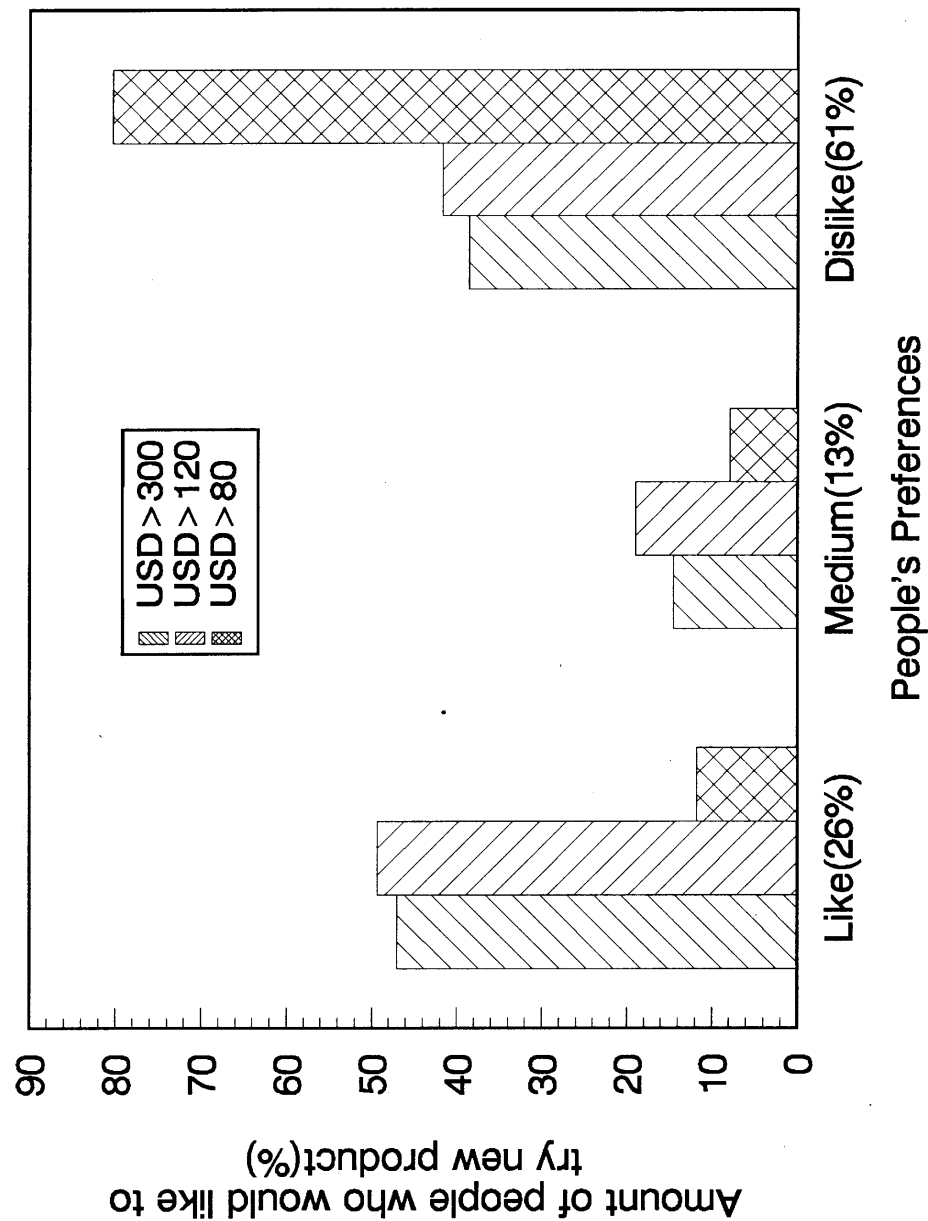
because both the labor and packing material costs are cheaper. Many products produced outside China are repackaged in small containers in China.

Table 9 Investigation of customers' preferences on trying new dried fishery products in Dalian

Amount of people	People's preferences	Investigation Results		
		Monthly income	Amount of people	Amount of people who would like to try new products
1000	Like 26%	>USD300	83	39 (47.0 %)
		>USD120	410	161 (49.3 %)
		>USD80	507	60 (11.8 %)
	Medium 13%	>USD300	83	12 (14.5 %)
		>USD120	410	78 (19.0 %)
		>USD80	507	40 (7.9 %)
	Dislike 61%	>USD300	83	32 (38.6 %)
		>USD120	410	171 (41.7 %)
		>USD80	507	407 (80.3 %)

Data in the parentheses are the percentages of the number of people who would try new products comparing with the number of people investigated.

Graph 11 Customers' Preferences on Trying New Dried  
Fishery Products in Dalian



Some introductions of new products feature packages that are extremely decorative in order to attract customers and increase the sales volume. This always produces an adverse effect on the market, since nobody can believe that one product can have so many functions. However, proper indications and instructions on the package will attract customers and allow customers to develop trust in the products and the producers. Finally, the investigations indicated that the customer is more likely to try new dried fishery products if the product type is familiar.

## **6. Market size and market value**

As illustrated on Table 7 and Graph 8, the average expenditures on dried fishery products compared with the expenditures on all other food items is 1.0% to 2.0%. In Chinese cities, at least two persons in each family have incomes. The expenditures on food items vary from family to family, but usually amount to about \$100 to \$250. Therefore, the average expense on dried fishery products is about \$1.00 to \$5.00 per month.

As shown on Table 1, the production levels of dried fishery products, including pickled and smoked products, fluctuated greatly from 1993 to 1996. However, the estimated production of dried fishery products in 1997 will be at least similar to that of 1996. Therefore, the rate of consumption of dried fishery products should be quite steady in the near future.

It is now well known that good nutrition is vital for people of all ages and that poor nutrition may be linked to many serious diseases. As everybody knows, fishery products are very nutritious because the fat is highly unsaturated and the protein contains eight essential amino acids. People living inland from coastal areas would like to regularly

purchase fishery products, mainly dried fishery products. Otherwise they may suffer from the lack of some nutrients such as iodine.

It is very clear that the production of fishery products in China increased gradually from 1993 to 1996. The importation of fresh or frozen fish is increasing as well. As mentioned, it is estimated that the production level of fishery products in 1997 will be higher than that in 1996. The market size for fishery products is, therefore, enlarging, but this does not mean that the market size for dried fishery products will also increase. According to several large processing companies, the market size for dried fishery products will be quite steady. The demand for highly nutritious products (such as dried sea cucumber) and snack products (such as roasted fish fillet and shredded squid) will increase in the big cities. Overall, the demand for dried mackerel and similar products will remain quite stable. The demand for dried fishery products in inland areas, including the northern and western parts of China, will increase.

As people's incomes increase, so will their expenditures on highly nutritious foods and snack foods. One item of information should be emphasized: Chinese people prefer to purchase fresh or frozen fishery products if they are available. In spite of this, the demand for dried fishery products will increase in China in the near future.

Further studies should be carried out in inland areas, particularly the northern, western, southwestern, and central areas of China. Although people living in inland areas usually prefer fresh water fish, these resources are limited. If cheaper dried fishery products, like mackerel, spotted herring, flounder, and other products can be provided, the customers will probably be delighted to accept them. The actual market value of newly introduced products can be studied in future investigations.

Graph 8 shows the production level of dried fishery products in Liaoning Province in recent years. We can see that the production of roasted fish fillet (pollock fillet) kept quite stable over the past five years. The production of dried spiced fish crumbs increased gradually over this period. A new product, shredded squid, was introduced in 1995. The production was only 5.3 tons in 1995. Production increased to about 80 tons in 1996. This expansion demonstrates that consumers welcome this kind of product. It is estimated that the production level of roasted fish fillet and shredded squid in 1997 will be similar to that of 1996. As shown in Graphs 1, 2, 3, 4, and 5, the dried fishery product production levels in Liaoning, Shandong, Jiangsu and Guangdong Provinces were all higher in 1996 than they were in the past. All of these observations indicate that the market size for dried fishery products will increase or at least remain steady.

Graph 7 shows the estimated production levels of various dried fishery products on the Shandong market in 1996. As the graph illustrates, the products with the highest production amounts are dried fishery products. This includes all kinds of fish species processed by numerous processing methods. The product with the second highest production amount is dried kelp slices. Of course, these products are not consumed only on the Shandong market; they are marketed throughout the country.

## **7. Price information**

Dried fishery products are sold in supermarkets, small retail shops, and wet markets. Usually, the supermarket and large stores make a profit of 20-40%. These outlets purchase the products from either the producer or wholesaler. The smaller retail shops usually purchase the products from wholesalers and the profit realized is usually 20%. Their products are numerous, come from various sources, and are sold at various prices. Again, the profits there are usually less than those made by the supermarkets. However, if you



want to buy high quality products, usually you should go to the large stores, wholesalers, or retailers representing certain producers.

Appendix I Tables 1-9 show the retail prices of all the dried fishery products in the markets. One item to be pointed out is that the price variation in one product sold in different areas is negligible.

## **8. Import and export tariffs**

There are no restrictions concerning the types of dried fishery products that can be imported and exported. See Appendix II for detailed information.

## **9. Suggestions for the developing Alaskan dried fishery products**

### **9.1 Selecting marketable species**

The number of fish and shellfish species harvested may be numerous, but consumer preferences should be kept in mind when choosing the species to be used for the processing of dried fishery products. For example, although there are many different species of sea cucumbers, *Stichopus japonicus* (Selenka) is most loved by the Chinese people. This specie is thought to be the most nutritious of all sea cucumbers. Before 1995, some businesspersons in Dalian imported sea cucumbers from Canada. The products did not find valuable markets because the Canadian specie was very different from most species of China. Therefore, selecting the right specie is the first step to the development of a successful market for a new product.

## 9.2 Selection of correct processing technologies and recipes

Many dried fishery products sold in China are processed using technologies and recipes specified by the importers. These products include items such as roasted fish fillet, which was originally processed from file fish, but is now made from pollock. These types of products in final processed form are imported and sold on the markets, as well. Customers prefer those products with taste and texture well within acceptable ranges. When marketing a product, it may help if the processor concentrates on processing technologies, consumer preferences in different marketing regions, and the saturation of the dried fishery product market. Close attention to these factors will promote the success of a new product on the Chinese market. Also, note that a product with foreign taste sometimes is very attractive to the Chinese people, particularly to young people.

## 9.3 Making suitable price decisions

The price of an item is one of the most important factors relating directly to sales volume. The market potential for a product has a very close relationship with the income of the potential customers. Therefore, if a new product is put on the market, the purchasing capacity of the customers should be considered. The retail prices indicated on Appendix I Table 1-9 will provide ideas for making new product price decisions.

## 9.4 Take the direct distribution channel

In order to reduce the expenses associated with the distribution of products, the producer should choose the direct marketing channel and set a unique price for the whole country.

## Appendix I Dried Fishery Products on the Markets

Table 1 Dried Fishery Products  
on Dalian Market

Products	Price (USD/kg)	Origin
Baked Prawn	18.1-24.1	Dalian
Dried Prawn	26.5-38.6	Dalian
Roasted fish fillet	7.2-8.7	Dalian
Shredded squid	10.8-19.9	Dalian
Baked dried squid	9.6-14.5	Dalian
Baked spiced dried squid	7.2-8.4	Dalian
Dried squid	4.1-13.5	Dalian
Dried ink fish	27.7-31.3	Dalian
Dried sea cucumber 1	65.1-168.7	Dalian
Dried sea cucumber 2	74.7-144.6	Russia
Dried abalone	91.6-207.0	Guangzhou
Dried scallop adductor1	115.7	Dalian
Dried scallop adductor2	13.5-27.7	Dalian
Dried trout fillet	5.5	Dalian
Dried mussel meat	3.3	Dalian
Dried clam meat	2.4	Dalian
Dried gutted eel	3.7	Dalian
Dried shark fillet	4.8	Dalian
Dried gutted puffer	3.8-7.7	Dalian
Dried large yellow croaker	7.7	Dalian
Dried greenling fillet	4.3	Dalian
Dried torpedo	3.6-6.3	Dalian
Dried spanish mackerel	3.1	Dalian
Dried spiced anchovy	2.4	Dalian
Dried kelp slices	0.9	Dalian
Dried purple larver	2.2-3.6	Fujian
Dried shark fin	48.2-602.4	Dalian
Dried fish bladders	48.2-142.2	Fujian

Table 2            Dried Fishery Products  
                         on Beijing Market

Products	Price(USD/kg)	Origin
Baked spiced eel	9.8	Fujian
Roasted fish fillet	7.0	Dalian
Shredded squid	22.2	Dalian
Dried shrimp	15.9-19.3	Zhejiang
Dried scallop adductor	6.0	Qingdao
Dried shark fin	144.6-216.2	Guangdong
Dried fish bladders	33.7-96.4	Guangdong
Dried sea cucumber	120.5	Guangdong
Dried abalone	79.2	Guangdong
Dried oyster	6.0	Shandong
Dried ink fish	23.8	Qingdao
Dried larver	18.1	Fujian

Table 3            Dried Fishery Products  
                         on Shanghai Market

Products	Price(USD/kg)	Origin
Dried little shrimp	1.0-2.2	Shanghai
Dried mussel meat	2.7-3.6	Zhejiang
Dried shrimp	6.0-11.6	Shanghai
Dried gutted eel	6.0-9.6	Jiangsu
Dried squid	8.4-12.0	Shanghai
Dried squid slices	20.5-22.9	Shanghai
Dried sea cucumber	78.3-156.6	Zhejiang
Dried ink fish	14.5-19.3	Shanghai
Dried spiced little fish	3.6	Shanghai
Dried eel fish	8.4-10.8	Jiangsu
Dried spiced eel fish	10.8	Jiangsu
Baked dried spiced fish fillet	7.2-10.8	Shanghai
Dried fish fin	108.4-903.6	Shanghai
Dried fish bladders	57.8-163.9	Shanghai
Dried abalone	180.7-867.5	Zhejiang
Dried gutted mackerel	3.6	Shanghai
Dried salted mackerel	3.3	Shanghai
Dried skate fish	28.9	Shanghai
Dried scallop adductor	14.5-26.5	Shanghai
Dried clam meat	4.2	Zhejiang
Dried fried eel	9.6	Jiangsu
Dried spiced sardine	6.5	Shanghai

Table 4      Dried Fishery Products  
on Guangdong Market

Products	Price (USD/kg)	Origin
Dried prawn	45.8	Guangdong
Baked prawn	38.6	Guangdong
Spiced prawn	73.5	Guangdong
Dried mussel meat	4.8	Guangdong
Spiced dried mussel	6.0-9.4	Guangdong
Dried scallop adductor	15.7-34.9	Guangdong
Dried spiced scallop adductor	44.6	Guangdong
Dried spiced clam meat	2.0-3.0	Guangdong
Dried abalone	96.4-277.1	Guangdong
Dried sea cucumber	60.2-204.8	Guangdong
Dried spiced fish fillet	2.7-6.4	Guangdong
Roasted fish fillet	8.4-10.7	Guangdong
Baked squid	9.6-11.4	Guangdong
Baked squid slices	19.3-22.9	Guangdong
Baked dried conger parts	4.8-7.3	Guangdong
Dried spiced eel parts	7.6-9.2	Guangdong
Dried spiced anchovy parts	4.8-6.9	Guangdong
Spiced fish slices	2.4	Guangdong
Dried eel fish	2.8	Guangdong
Dried fish sirimi slices	3.6	Guangdong
Dried fish bladders	48.2-125.3	Guangdong

Table 5            Dried Fishery Products  
                      on Qingdao and Yantai Markets

Products	Price (USD/kg)	Origin
Dried prawn1	42.2	Yantai
Dried prawn2	25.3-32.5	Yantai and Qingdao
Baked prawn	16.6-24.1	Yantai
Roasted fish fillet	6.9-8.3	Yantai
Baked dried squid slices	18.8-22.3	Yantai
Baked dried squid	14.2	Yantai
Dried spiced squid	7.2	Yantai
Dried squid	3.6-13.5	Yantai
Dried ink fish	26.3-30.1	Qingdao
Dried sea cucumber	45.8-168.7	Yantai and Qingdao
Dried abalone	8.2-229.9	Weihai
Dried spanish mackerel	1.0-4.1	Weihai
Dried salted small fish	0.2-1.2	Yantai
Dried kelp slices	0.8	Yantai
Dried purple larver	2.0-3.3	Jiangsu
Dried skate	28.9	Qingdao
Dried spiced sardine	6.5	Qingdao
Dried shark fin	84.3-638.5	Qingdao
Baked dried eel	9.6	Qingdao
Baked dried eel	10.5	Qingdao
Dried fish bladders	57.8-163.8	Guangdong

Table 6            Dried Fishery Products  
                      on Fuzhou Market

Products	Price (USD/kg)	Origin
Dried scallop adductor	22.6	Fujian
Dried fish fillet	5.6-7.5	Fujian
Dried clam meat	6.8	Fujian
Dried fish slices	29.5	Fujian
Shark fin	150.8-581.1	Shandong
Dried mussel meat	4.3	Fujian
Dried ink fish	14.2-28.6	Fujian
Dried shrimp	15.1	Fujian
Roasted fish fillet	10.0	Fujian
Dried raw clam meat	22.6	Fujian
Shredded squid	18.1-21.7	Fujian
Baked dried eel slices	12.9	Fujian
Dried fish crumb	8.1	Fujian
Dried little squid	9.4	Fujian
Dried abalone	753.1	Fujian
Dried little silver fish	9.4	Fujian
Dried spiced lean fish	6.9	Fujian
Dried purple larver	8.3	Fujian

Table 7            Dried Fishery Products  
on Xiamen Market

Products	Price (USD/kg)	Origin
Dried mussel	10.8-15.7	Fujian
Dried clam meat	2.9	Fujian
Dried oyster	9.6	Fujian
Dried shrimp	1.7-2.9	Fujian
Dried fish fillet	2.4-2.9	Fujian
Dried salted fish fillet	1.6	Fujian
Dried mussel meat	2.9-3.6	Fujian
Dried kelp slices	0.7	Fujian
Dried ink fish	15.7	Fujian
Dried squid	6.2-9.6	Fujian
Dried little silver fish	10.1	Fujian
Baked dried fish fillet	11.3	Fujian

Table 8            Dried Fishery Products  
on Shenyang Market

Products	Price (USD/kg)	Origin
Dried prawn	18.2-23.5	Dalian
Baked prawn	23.1-35.2	Dalian
Roasted fish fillet	7.2-8.7	Dalian
Shredded squid	10.8-19.9	Dalian
Baked dried squid	9.6-14.6	Dalian
Dried ink fish	28.1-30.6	Dalian
Dried sea cucumber	70.5-230.0	Dalian
Dried abalone	90.8-220.0	Dalian
Dried scallop adductor	116.0	Dalian
Dried clam meat	2.0	Fuzhou
Dried shark fin	30.6-580.6	Guangdong
Dried spanish mackerel	2.8-3.0	Fuzhou
Dried spiced anchovy	2.4	Fuzhou
Dried kelp slices	0.9	Dalian
Dried purple larver	2.0-3.6	Fujian

Table 9            Dried Fishery Products  
on Ningbo Market

Products	Price (USD/kg)	Origin
Dried salted ink fish	12.0	Zhoushan
Dried ink fish	15.6	Zhoushan
Dried squid	6.0-7.2	Zhoushan
Dried salted yellow croaker	12.5	Fujian
Dried yellow croaker	60.2	Zhoushan
Dried salted eel	3.6	Zhoushan
Dried gutted eel	4.3-4.8	Zhoushan
Dried fish fin	8.4	Zhoushan
Dried raw fish fillet	5.3	Zhoushan
Dried gutted puffer	3.8	Zhoushan
Dried mussel meat	6.0	Zhoushan
Dried shrimp	15.7-16.8	Zhoushan
Dried purple larver	6.0	Zhoushan



## **Appendix II                      Importation Tariff**

### **The Tariff for Importation of Dried Fishery Products**

<b>Products</b>	<b>Tariff</b>
Fresh, Frozen Atlantic Salmon	15%
Other Fresh, Frozen Salmon	25%
Fresh, Frozen Halibut	15%
Fresh, Frozen Cooled Mussel	30%
Fresh, Frozen Cooled Squid and Ink Fish	25%
Fresh, Alive Abalone	45%
Frozen Shrimp	30%
Fresh, Cooled Shrimp	30%
Fresh, Frozen Crab	30%
Fresh, Cooled Scallop Adductor	30%
Frozen Cod	20%
Frozen Herring	20%
Dried, Salted Mussel	20%
Dried, Salted Ink Fish and Squid	25%
Dried, Salted Abalone	40%
Dried, Salted Sea Cucumber	30%
Dried Scallop Adductor	30%
Dried, Smoked, Salted Fish Liver and Roe	25%
Dried, Salted Fish Fillet	30%
Smoked Salmon	30%
Dried Cod Fish	30%
Fish Fin	30%
Salted Cod	30%
Salted Anchovies	30%

## **Appendix III**

## **Contacting Information**

Name

Address

Li Jun

Vice Director  
Dalian Aquatic Products Bureau  
Culture Section  
No. 100 Jiqing Street, Zhongshan District  
Dalian , China 116001  
Tel: 0411-2638376  
Fax: 0411-2636217

Yan Faqing

Manager  
Fishery Processing Factory  
Dalian Marine Fishery Corp. Of Liaoning Province  
Dalianwan. Ganjingzi District.  
Dalina, China. 116113  
Tel: 0411-7600318-5694,6124  
Fax: 0411-7600801/7605232

Lu Yihua

General Manager  
Joint Venture  
Dalian FARI Sea Food Co. Ltd.  
No. 1 Xingcheng Road  
Dalian Economic & Technical Development Zone.  
China  
Tel: 0411-7613137  
Fax: 0411-7611463

Wu Dingchang

Manager  
Shanghai Fish Processing Factory  
Shanghai Donghai Pharmaceutical Works  
486 Gongqing Road  
Shanghai, China. 200090  
Tel: 021-65462030  
Fax: 021-65431539

Lin Peimado

Manager  
Ningbo Marine Fishery Corporation  
Fish Processing Plant  
39 North Daqing Road. Ningbo. China. 315020  
Tel: 0574-7635458  
Fax: 0574-7635459

Name	Address
Wang Qixin	Engineer Fishery Bureau of Fujian Processing Council of Fujian Provincial Fishery Academy Yishan Road. Fuzhou. China. 350003 Tel: 0591-7833507 0591-7855669
Song Lili	Fishery Bureau of Zhejiang Province Tianmukai Road. Hangzhou. China 310070 Tel: 0571-8845201
Li Hengyi	General Manager Shandong Xunshan Aquatic General Corp. Group Shandong Rongcheng Huanhai Aquatic Corp., Ltd. Tel: 0896-7651108 Fax: 0896-7651256
Zheng Chenxing	Fishery Academy Council of Guangzhou City No. 6 Haiming Street, Guangzhou Guangdong, China, 510235 Tel: 020-84429560 Fax: 020-84401961
Liang Yaoming	Engineer President Guangzhou Yongxing Seafood and Aquatic Products Co. Ltd. 141 Yongxing Street, Hongde Road. Guangzhou. China. Tel: (20)84416441 Fax: (20)84416272
Chang Yaojin	Director Ocean and Fishery Bureau No. 6 Haiming Street Binjiangxi Road Guangzhou Tel: (20)87663878 Fax: (20) 84401961



